

# Pressure-Sensitive Paints Advance Rotorcraft Design Testing



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## **NASA Technology**

- ◆ Pressure-sensitive paint (PSP) allows for air pressure measurements throughout the entire surface of the vehicle.
- ◆ NASA was seeking a technology that could gather instantaneous dynamic pressure data from surfaces moving at high speeds, such as rotor blades.



## **Technology Transfer**

- ◆ ISSI, through Small Business Innovation Research (SBIR) funding, developed the Fast PSP program.
- ◆ Tests at Langley show that Fast PSP is able to show changes in the pressure of a single blade as it rotates around a helicopter.
- ◆ Fast PSP can collect 1,000 pressure measurements in the time it takes PSP to collect a single one.

## **Benefits**

- ◆ Fast PSP has so far generated about \$200,000 in commercial sales.
- ◆ The product has generated interest from people working with helicopter rotors, wind turbines, and acoustic noise research.
- ◆ ISSI and NASA are working toward applying PSP technology to actual flight tests.